

ABSTRACT

A multi-point seat belt, capable of sustaining all translatory and rotatory-acceleration dependant forces, to which a passenger in any accident of a transport system is subjected, includes two shoulder belt portions, a lap belt portion, master release-button, belt-feeding device, an anti-submarining latch plate and multi-attachment points. The upper part of his body and the lower part are restrained by both shoulder belt portions, extending crosswise in an X-shape, and by the lap-belt portion upon plug-in connection of a shoulder latch plate with an upper buckle assembly and of a main latch plate with a main buckle assembly. To avoid submarining his thighs are additionally restrained by two portions subdivided from the lap belt portion upon plug-in connection of its anti-submarining latch plate with one of buckle assemblies of the seat cushion.

To meet the increasing customer-demand for comfort the belt-feeding device moves the first shoulder belt portion to extend across over the upper part of the body of the passenger, when taking his seat.

The master release-button, when depressed, releases all latch plates and returns the belt-feeding device to the home position thus increasing the convenience of the passenger, when stepping out, and the survival chance in cases of emergency.

This inventive technology is applicable for dissipating great energy and damping strong vibration in multi-crash or vibration when the multi-point seat belt is provided with an appropriate number of energy absorbers.

ABSTRACT

A multi-point seat belt, capable of sustaining all acceleration-dependant forces, to which a passenger in any accident of a transport system is subjected, includes two shoulder-belt portions, a lap-belt portion, master release-button, belt-feeding device, an anti-submarining latch plate and multi-attachment points. The upper part of his body and the lower part are restrained by both shoulder-belt portions, extending crosswise in an X-shape, and the lap-belt portion upon plug-in connection of a shoulder latch plate with an upper buckle assembly and of a main latch plate with a buckle assembly. His thighs are restrained by two portions subdivided from the lap-belt portion upon plug-in connection of its anti-submarining latch plate with a buckle assembly of the seat cushion.

The belt-feeding device, when activated, moves the first shoulder belt portion to extend across over the upper part of the body of the passenger, when taking his seat.

The master release-button, when depressed, releases all latch plates and returns the belt-feeding device to the home position.